

its predecessors in the series, is based almost entirely on cases from the author's own long experience in the practice of surgery, and covers all of the conditions that the average surgeon is liable to encounter. As the author states in his introduction, no attempt has been made to include very rare conditions of which he has not had personal experience.

The many illustrations and their excellent reproduction are a valuable part of the text. The illustrations are all original. Considering the technical difficulties of photography of the moist buccal cavity, the author and his photographer, Mr. Barlow, are to be complimented on their achievements. The surgeon will find this book of practical aid in the recognition of the common surgical conditions of the mouth and jaws.

Medical Applications of the Short Wave Current. W. Bierman, M.D. and M. M. Schwarzschild. 379 pp. \$5.00. William Wood, Baltimore, 1938.

The authors have produced a book that may be used as an encyclopædia of short-wave treatment. The first part contains a detailed discussion of the electrical processes active in the production of the high frequency currents.

Much experimental work has been carried out and recorded on the application of the high frequency currents to the human subject, particularly with regard to temperature determinations and the physiological responses of the various body systems. The subject of specificity is thoroughly dealt with, that is, the specific effect that some claim for this current outside its heating capacity. The authors conclude that they find themselves in agreement with a report to the Council on Physical Therapy of the American Medical Association that "the burden of proof still lies on those who claim any biological action of these currents other than heat".

The second part of the book is entitled Clinical Considerations, and opens with a chapter on technique discussing length of treatment, wave-lengths and spacing of electrodes, together with fever therapy. Following this, the use of this treatment in dealing with diseases of the body is discussed and the work of many different investigators referred to.

This book should be of value to teachers, physiotherapists and to practitioners, giving, as it does, a complete review of the subject and a very fair-minded estimate of the treatment's value. The authors have been careful not to allow enthusiasm to overshadow the actual proofs.

Roentgen Diagnosis of the Extremities and Spine. A. B. Ferguson. 435 pp.; illust. \$12.00. P. B. Hoeber, New York, 1939.

This book, printed on excellent paper, and bound in covers similar to the other Annals of Roentgenology, is a sound companion to its predecessors. There are 512 illustrations, well done, to provide comparison with questionable cases in x-ray practice. Each illustration is sufficiently described and many intensive illustrative case-histories are provided. There is a complete general index and an index of case-histories. The lesions are arranged under anatomical divisions and histological classifications. As is readily seen, these features make the book a quick source of reference for the surgeon or roentgenologist. One feature specially valuable is the discussion and illustration of decalcification in its many aspects, a subject of increasing interest to the surgeon treating fractures as well as to the orthopaedic surgeon.

Le Duodénum—Atlas de Radiologie Clinique. P. Cottenot, M. Lévy and E. Chérigé. 224 pp. 285 Fr. Doin et Cie, Paris, 1938.

This atlas is in itself a full course of training in the difficult interpretation of the x-ray pictures of the duodenum, and contains 496 roentgenograms and as many explanatory drawings.

The first chapters deal with technique and the morphology of the normal duodenum; also, non-pathological anomalies. Then comes the study of diverticula,

foreign bodies, deformities of extrinsic origin, periduodenitis, stenoses, tumours, tuberculosis and the mycoses, ulcers. Both normal and pathological pictures are shown in every instance. They are so abundant that the reader has at times the impression of being shown the frames of a cinematographic film.

All the illustrations are life-size. This greatly facilitates reading, made still easier by the line drawings facing every halftone. There is a chapter figuring various aspects of the healthy or diseased duodenum after operation. Many surgical operations are described, and their immediate or remote results illustrated with roentgenograms.

This book is more than an atlas; it is replete with clinical data, and should prove quite as valuable to internists and surgeons as it will to the radiologist.

Chemistry of the Amino-Acids and Proteins. Edited by C. L. A. Schmidt. 1031 pp.; illust. \$7.50. C. C. Thomas, Springfield, 1938.

The first part of this book deals with the chemical properties, the methods of preparation and synthesis of the amino-acids; the second part is devoted to an exhaustive study of the physical chemistry of solutions of amino-acids and of proteins. There are chapters dealing with the rôle of proteins in nutrition, metabolism, and immunology, but these, though competent, are brief, and the book is recommended only to those who wish to master present-day concepts of protein physical chemistry. With this limitation, it can be recommended without reservation: it is more thorough, more complete, and more authoritative than any other work on this topic, and no one interested in this field can possibly afford to neglect it. Every biochemist will be grateful to the editor and his collaborators for presenting them with this critical guide to a perplexing yet fundamental topic. In a word, this book is not for the beginner or the dilettante, but a real treasure to the expert.

Physiology of the Nervous System. J. F. Fulton. 675 pp.; illust. \$6.00. Oxford Univ. Press, New York, 1938.

When "an exposition of the experimental physiology of the central nervous system" comes from the pen of a leader in research, who is in addition a distinguished teacher and writer, the reader anticipates a monograph of outstanding merit. He will not be disappointed in this case.

The author has provided a clear and comprehensive description of the physiology of the various parts of the brain and spinal cord. The functional inter-relation of the component parts is considered so far as it is now known. Of particular interest and value is the account of the physiology of the cerebral cortex and the relationship between the pyramidal and extra-pyramidal systems. The author is the pioneer in the modern conception that specific functions may be related to specific cyto-architectural areas of the cerebral cortex. This conception is now based on vast experimental experience. The chapters devoted to the autonomic nervous system emphasize the relationship between the various levels of activity of the autonomic and central nervous systems including the cerebral cortex. No account is included of the recent work on the electrical reactions of the intact human brain (electro-encephalography).

The introduction of the reader to each chapter by a historical note both stimulates interest and gives insight to the subject. For the reader new to the nervous system these historical notes are the introduction of choice and they are so well documented as to constitute a guide for historical study. The bibliography, consisting of 1,361 references, is unique in medical literature concerning the central nervous system.

The reviewer feels that this book reflects the present state of knowledge of the physiology of the central nervous system in complete yet concise form. The book is unreservedly recommended; to neuro-anatomists it is a physiological guide, and should indicate where lies the need for emphasis in anatomical teaching; to physio-